2014 Annual Drinking Water Quality Report for Egremont Water Department 133 Mount Washington Road South Egremont, Massachusetts MASSDEP PWSID # 1090000



Treatment Plant

This report is a snapshot of drinking water quality that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with information because informed customers are our best allies.

I. PUBLIC WATER SYSTEM INFORMATION

Address: 133 Mount Washington Road, South Egremont, Massachusetts

Contact Person: James Olmsted, Primary Operator

Telephone #: (413) 644-9614 Plant (413) 528-0182 ext 17 Clerk

Internet Address: www.egremont-ma.gov

Water System Improvements

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, your water system is operated by a Massachusetts certified operator who oversees the routine operations of our system. As part of our ongoing commitment to you, last year we made the following improvements to our system: pumps were rebuilt and/or replaced on our maintenance schedule; leak detection was accomplished throughout the year in an effort to save processed water; meters are serviced on a regular basis to assure accurate readings.

Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend the following meetings or educational events: regular Water Commission meetings are held every month on the second Thursday at Town Hall.

2. YOUR DRINKING WATER SOURCE

Where Does My Drinking Water Come From?

Your water is provided by the following source listed below:

Source Name	MassDEP Source ID#	Source Type	Location of Source
Karner Brook	1090000-01S	Surface	Mount Washington Road

Is My Water Treated?

Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat it to remove several contaminants.

- We add a disinfectant to protect you against microbial contaminants.
- We filter the water to remove small particles and organisms such as sediment, algae and bacteria.

The water quality of our system is constantly monitored by us and MassDEP to determine the effectiveness of existing water treatment and to determine if any additional treatment is required.

How Are These Sources Protected?

MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies.

What is My System's Ranking?

A susceptibility ranking of high was assigned to this system using the information collected during the assessment by MassDEP.

Where Can I See The SWAP Report?

The complete SWAP report is available at Town Hall and online at http://www.mass.gov/dep/water/drinking/sourcewa.htm#reports. For more information, call (413) 528-0182 ext 17.

What Are the Key Issues For Our Water Supply?

The SWAP Report notes the key issues of residential land use in Zone A and the watershed; transportation corridors; forestry/watershed management; protection planning; water treatment facility.

The report commends our water system on for taking an active role in promoting source protection measures in the Water Supply Protection Areas through maintaining high awareness of the watershed.

What Can Be Done To Improve Protection?

The SWAP report recommends:

- Inspect the protection areas regularly, and when feasible, remove any non-water supply activities.
- Educate residents on ways they can help you to protect drinking water sources.
- Work with emergency response teams to ensure that they are aware of the storm water drainage in your watershed and to cooperate on responding to spills or accidents.
- Work with landowners in your protection areas to make them aware of your water supply and to encourage the use of a best management practices for residential and recreational uses.
- Develop and implement Forest Management Plan and a Watershed Management Plan for water supply protection.

Our public water system plans to address the protection recommendations by complying with and implementing the above recommendations.

Residents can help protect sources by:

- Practicing good septic system maintenance
- Supporting water supply protection initiatives at the next town meeting
- Taking hazardous household chemicals to hazardous materials collection days
- Contacting the water department or Board of Health to volunteer for monitoring or education outreach to schools
- Limiting pesticide and fertilizer use, etc.

3. SUBSTANCES FOUND IN TAP WATER

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, and in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

<u>Microbial contaminants</u> -such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

<u>Inorganic contaminants</u> -such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

<u>Pesticides and herbicides</u> -which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

<u>Organic chemical contaminants</u> -including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

Radioactive contaminants -which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPAcs Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [INSERT THE NAME OF YOUR UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

4. IMPORTANT DEFINITIONS

<u>Maximum Contaminant Level (MCL)</u>. The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

<u>Maximum Contaminant Level Goal (MCLG)</u> . The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

<u>Maximum Residual Disinfectant Level (MRDL)</u> -- The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

<u>Maximum Residual Disinfectant Level Goal (MRDLG)</u> -- The level of a drinking water disinfectant (chlorine, chloramines, chlorine dioxide) below which there is no known of expected risk to health.

MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

<u>Treatment Technique (TT)</u>. A required process intended to reduce the level of a contaminant in drinking water. <u>Action Level (AL)</u>. The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

90th Percentile. Out of every 10 homes sampled, 9 were at or below this level.

<u>Secondary Maximum Contaminant Level (SMCL)</u>. These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

<u>Massachusetts Office of Research and Standards Guideline (ORSG)</u>. This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

5. WATER QUALITY TESTING RESULTS

What Does This Data Represent?

The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown was collected during the last calendar year unless otherwise noted in the table(s).

	Date(s) Collected	90 TH percentile	Action Level	MCLG	# of sites sampled	# of sites above Action Level	Possible Source of Contamination
Lead (ppb)	8/2014	<.015	15	0	10	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm)	8/2014	<1.1	1.3	1.3	10	0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives

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	Highest # Positive in a month	MCL	MCLG	Violation (Y/N)	Possible Source of Contamination
Fecal Coliform or E.coli	0.0	*	0	N	Human and animal fecal waste

Compliance with the Fecal Coliform/E.coli MCL is determined upon additional repeat testing.

Turbidity	TT	Lowest Monthly % of Samples	Highest Detected Daily Value	Violation (Y/N)	Possible Source of Contamination
Daily Compliance (NTU)	5		0.41	Ν	Soil runoff
Monthly Compliance*	At least 95%	100	0.41	N	

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality.

^{*}Monthly turbidity compliance is related to a specific treatment technique (TT). Our system filters the water so at least 95% of our samples each month must be below the turbidity limits specified in the regulations.

Regulated Contaminant	Date(s) Collected	Highest Result or Highest Running Average Detected	Range Detected	MCL or MRDL	MCLG or MRDLG	Violation (Y/N)	Possible Source(s) of Contamination	
Inorganic Contaminants								
Asbestos (MFL)	Due 2022	-	-	7	7	N	Decay of asbestos cement water mains; erosion of natural deposits	
Nitrate (ppm)	qtrly	0	-	10	10	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	
Nitrite (ppm)	qtrly	0	1	1	1	N	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits	
Perchlorate	waiver	0	-	2	N/A	N	Rocket propellants, fireworks, munitions, flares, blasting agents	
Volatile Organic Contami	nants							
VOC Testing	qtrly	0	-	10	10	N	Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories; discharge from chemical factories	
Radioactive Contaminant	s							
Gross Alpha (pCi/l)	Due 2015	-	-	15	0		Erosion of natural deposits	
Radium 226 & 228 (pCi/L) (combined values)	Due 2015	-	-	5	0		Erosion of natural deposits	
Synthetic Organic Contan	Synthetic Organic Contaminants							
General	Due 2015	-	-	-	-	-		
Disinfectants and Disinfection By-Products								
Total Trihalomethanes (TTHMs) (ppb)	Quarterly in 2014	11	-	80		N	Byproduct of drinking water chlorination	
Haloacetic Acids (HAA5) (ppb) Fluoride also has a secondar	Quarterly in 2014	5.7	-	60		N	Byproduct of drinking water disinfection	

Fluoride also has a secondary contaminant level (SMCL) of 2 ppm. The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/L to be the level of concern for beta particles.

Unregulated contaminants are those for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted.

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source		
Inorganic Contaminants								
Sodium (ppm)	QTR2	-	3.2		20	Natural sources; runoff from use as salt on roadways; by-product of treatment process		
Bacteriological Contaminants								
Standard screen	monthly	0	0			Discharged especially where water is contaminated with sewage or animal wastes		

Unregulated and Secondary Contaminants	Date(s) Collected	Result or Range Detected	Average Detected	SMCL	ORSG	Possible Source			
Secondary Contaminants									
Iron (ppb)	QTR2	0	0	300		Naturally occurring, corrosion of cast iron pipes			
Manganese* (ppb)	QTR2	0	0	50	Health Advisory level 300ppb	Erosion of natural deposits			
Copper (ppm)	QTR3	0	0	1		Naturally occurring organic material			
PH	daily	6.7-7.5	6.72	6.5-8.5					
Total Dissolved Solids (TDS) (ppm)	daily	NA	.021	500		Erosion of natural deposits.			

^{*} US EPA has established a lifetime health advisory (HA) value of 300 ppb for manganese to protect against concerns of potential neurological effects, and a one-day and 10-day HA of 1000 ppb for acute exposure.

6. COMPLIANCE WITH DRINKING WATER REGS

Does My Drinking Water Meet Current Health Standards?

We are committed to providing you with the best water quality available. We are proud to report that last year your drinking water met all applicable health standards regulated by the state and federal government.

7. EDUCATIONAL INFORMATON

Do I Need To Be Concerned About Certain Contaminants Detected In My Water?

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Egremont Water Department is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead."

Disinfection by-products result from reactions between organic and inorganic matter in water with chemical treatment agents during the water disinfection process. Chlorinated disinfection agents such as chlorine and chloramine are oxidizing agents introduced into water in order to destroy pathogenic microbes, to oxidize taste/odor-forming compounds, and to form a disinfectant residual so water can reach the consumer tap safe from microbial contamination. These disinfectants may react with naturally present fulvic and humic acids, amino acids, and other natural organic matter, as well as iodide and bromide ions, to produce a range of by-products such as trihalomethanes, haloacetic acids (HAAs), chlorite and others.

8. ADDITIONAL INFORMATION

The Town of Egremont Water Department is committed to providing our customers with safe, quality drinking water twenty-four hours a day, all year long. The water system is routinely inspected by Massachusetts Department of Environmental Protection and water testing and monitoring takes place every day along with daily inspections of the water source. The system is operated by a Massachusetts Certified Operator who oversees the system seven days a week. Leak detection and source water protection are top priorities of the Department.